

# PATENT ABSTRACTS OF JAPAN

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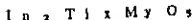
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| (21)Application number : | 63-149602  | (71)Applicant : | NICHIA CHEM IND LTD  |
| (22)Date of filing :     | 17.06.1988 | (72)Inventor :  | KIMURA KAZUHIRO<br>SUMITOMO MITSUSACHI<br>UCHIMURA KATSUNORI |

## (54) SLOW ELECTRON BEAM-EXCITED PHOSPHOR AND ITS PRODUCTION

### (57)Abstract:

**PURPOSE:** To obtain a phosphor of an improved luminance by coating the surface of a phosphor with particles of a specified conductivity imparting substance.

**CONSTITUTION:** In and Ti are coprecipitated in the form of a carbonate, oxalate, succinate or hydroxide, and the obtained precipitate is burned at 600-1800°C for 1-12hr to obtain particles (b) of a conductivity imparting substance having a particle diameter of 0.01-5  $\mu$ m and comprising an indium titanate compound of the formula



(wherein  $0 < x \leq 4$ ;  $0 \leq y \leq 2$ ; and M is Sn, Sb, W, Zn, Cd, Nb or K). The surface of a particle of a phosphor (a)

selected from a sulfide phosphor (i) wherein the matrix is ZnS, (ZnCd)S or CdS, the activator is Ag, Zn, Cu, Au or Mn, the first coactivator is Cl, Br, I, F or Al, and the second coactivator is Na, K, Li or the like, an oxide, aluminate or silicate phosphor (ii) wherein the matrix is ZnO, SnO<sub>2</sub> or the like, and the activator is Zn, Eu or the like, an oxysulfide phosphor (iii) wherein the matrix is Y<sub>2</sub>O<sub>2</sub>S, Gd<sub>2</sub>O<sub>2</sub>S or the like, and the activator is Eu, Tb or the like, and a phosphate phosphor (iv) wherein the matrix is LaPO<sub>4</sub> or the like, and the activator is Mn, Ce or Tb is coated with 0.1-25wt.% component (b).

